

ABSTRACT OF THE DISCLOSURE

A method of enhancing signal tracking in a global positioning system receiver utilizing a frequency banked filter in providing code and carrier tracking loops includes acquiring a continuous time global positioning signal and separating the continuous time global positioning signal into in-phase and quadrature signals I and Q. The signals I and Q are sampled over a predetection interval (PDI) to provide discrete time signals, and the discrete time signals are used to generate a component in-phase measurement and a component quadrature measurement for each of multiple PDI segments of one PDI. For each of multiple different frequency bins, composite in-phase and quadrature measurements are generated by combining component in-phase measurements and component quadrature measurements from the PDI. Power is detected in each of the multiple different frequency bins for the PDI using the corresponding composite in-phase measurement and the corresponding composite quadrature measurement generated for the frequency bin.